

<b>Notice of Allowability</b>	<b>Application N .</b>	<b>Applicant(s)</b>	
	09/688,541	SHIMODA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Wesley D Markham	1762	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed by the applicant on 9/26/2003.
2. ☒ The allowed claim(s) is/are 9, 11 and 17.
3. ☒ The drawings filed on 16 October 2000 and 24 February 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____.            |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____  | 7 <input type="checkbox"/> Examiner's Amendment/Comment                             |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|  | 9 <input type="checkbox"/> Other  |

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## **DETAILED ACTION / ALLOWANCE**

### ***Response to Amendment***

1. Acknowledgement is made of the amendment filed by the applicant on 9/26/2003 in which a substitute abstract of the disclosure was submitted, Claims 1 – 4 and 10 were canceled, and Claims 9, 11, and 17 were amended. Claims 9, 11, and 17 are currently pending in U.S. Application Serial No. 09/688,541, and an Office Action on the merits follows.

### ***Drawings***

2. The 13 sheets of formal drawings corresponding to Figures 1 – 13, submitted by the applicant on 10/16/2000, and the 2 sheets of corrected formal drawings corresponding to Figures 14 and 15, submitted by the applicant on 2/24/2003, are approved by the examiner.

### ***Specification***

3. The objection to the specification, specifically to the abstract of the disclosure, set forth in paragraph 4 of the previous Office Action (i.e., the non-final Office Action, paper #20, mailed on 5/30/2003), is withdrawn in light of the applicant's amendment in which an acceptable abstract was submitted.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. The rejection of Claim 17 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, set forth in paragraph 7 of the previous Office Action, is withdrawn in light of the applicant's amendment in which Claim 17 was amended to clearly recite that each of the lower refractive index layers is SiO<sub>2</sub> and each of the higher refractive index layers is Nb<sub>2</sub>O<sub>5</sub>.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in the previous Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. The rejection of Claim 10 under 35 U.S.C. 103(a), set forth in paragraph 12 of the previous Office Action, is withdrawn in light of the applicant's amendment in which Claim 10 was canceled.

***Allowable Subject Matter***

9. Claims 9, 11, and 17 are allowed.
10. The following is an examiner's statement of reasons for allowance: Independent Claim 9 (from which Claim 17 depends) and independent Claim 11 are both drawn to a method for producing an optical component having a multi-layer film on a base. A plurality of alternating higher refractive index layers and lower refractive index layers are deposited on the base and form a stack. A "tuning layer" having a higher refractive index is deposited on the plurality of layers, and a specific thickness controlling process is carried out during the deposition of the "tuning layer" (i.e., measuring an optical characteristic, particularly the transmittance, of the stack, and controlling, on the basis of the measured optical characteristic, the thickness of the tuning layer by terminating the deposition when the measured optical characteristic is changed to be decreased). The portion of the tuning layer that is deposited from a time point when the increase/decrease of the measured optical characteristic is stopped to a time point when the measured optical characteristic is changed to be decreased is removed, and a lower refractive index layer is deposited on / added on the tuning layer to form the multi-layer film. The closest prior art of record discussing

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the layer removal portion of the claimed process is Rahn (USPN 5,483,378). Rahn teaches that, in order to correct for errors in both inner and outer layer thicknesses, a portion of the outer, lower refractive index layer may be removed. As such, Rahn does not teach or reasonably suggest removing a specific portion of a high refractive index tuning layer that is located below a lower refractive index layer, as required by independent Claims 9 and 11. Therefore, the prior art of record, alone or in combination, does not teach or reasonably suggest each and every limitation of Claims 9 and 11, and these claims are allowed. Since Claim 17 depends from Claim 9, this claim is also allowed.

11. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley D Markham whose telephone number is (703) 308-7557. The examiner can normally be reached on Monday - Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



WDM

Wesley D Markham  
Examiner  
Art Unit 1762



**SHRIVE P. BECK**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**